ATTACHMENT A
NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET 50-410

PROPOSED CHANGES TO THE TECHNICAL SPECIFICATION

Replace existing pages 1-11 and 3/4 9-1 with the attached revised pages. These pages have been retyped in their entirety with marginal marking to indicate changes to the text.

TABLE 1.2

OPERATIONAL CONDITIONS

CONDITION	MODE SWITCH POSITION	AVERAGE REACTOR COOLANT TEMPERATURE
1. Power Operation	Run	Any temperature
2. Startup	Startup/Hot Standby	Any temperature
3. Hot Shutdown	Shutdown*,**	> 200°F
4. Cold Shutdown	Shutdown*,** †	≤ 200°F
5. Refueling†††	Shutdown or Refuel* #	≤ 140°F

TABLE NOTATIONS

* The reactor mode switch may be placed in the Run or Startup/Hot Standby position to test the switch interlock functions provided that the control rods are verified to remain fully inserted by a second licensed operator or other technically qualified member of the unit technical staff.

** The reactor mode switch may be placed in the Refuel position while a single control rod is being moved provided that the one-rod-out interlock is OPERABLE.

† The reactor mode switch may be placed in the Refuel position while a single control rod drive is being removed from the reactor pressure vessel per Specification 3.9.10.1

†† Fuel in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.

\# See Special Test Exceptions 3.10.1 and 3.10.3.

3/4.9 REFUELING OPERATIONS

3/4.9.1 REACTOR MODE SWITCH

LIMITING CONDITIONS FOR OPERATION

3.9.1 The reactor mode switch shall be OPERABLE and locked in the Shutdown or Refuel position. When the reactor mode switch is locked in the Refuel position:

a. A control rod shall not be withdrawn unless the Refuel position one-rod-out interlock is OPERABLE.

b. CORE ALTERATIONS shall not be performed using equipment associated with a Refuel position interlock unless at least the following associated Refuel position interlocks are OPERABLE for such equipment.

1. All rods in.
2. Refuel platform position.
3. Refuel platform hoists fuel-loaded.
4. Fuel grapple position.
5. Service platform hoist fuel-loaded.

APPLICABILITY: OPERATIONAL CONDITION 5* #, OPERATIONAL CONDITIONS 3 and 4 when the reactor mode switch is in the Refuel position.

ACTION:

a. With the reactor mode switch not locked in the Shutdown or Refuel position as specified, suspend CORE ALTERATIONS and lock the reactor mode switch in the Shutdown or Refuel position.

b. With the one-rod-out interlock inoperable, lock the reactor mode switch in the Shutdown position.

c. With any of the above required Refuel position equipment interlocks inoperable, suspend CORE ALTERATIONS with equipment associated with the inoperable Refuel position equipment interlock.

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* See Special Test Exceptions 3.10.1 and 3.10.3.

\# The reactor shall be maintained in OPERATIONAL CONDITION 5 whenever fuel is in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.

ATTACHMENT B
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SUPPORTING INFORMATION AND NO SIGNIFICANT HAZARDS CONSIDERATIONS ANALYSIS

Background

Technical Specification Table 1.2 defines the reactor mode switch positions and average coolant temperatures for the five Operational Conditions at Nine Mile Point Unit 2. The "**" footnote to Table 1.2 is applicable only to Operational Conditions 3 and 4. In the existing specifications, this footnote permits the reactor mode switch to be placed in the refuel position with the plant shutdown and the reactor head tensioned while a single rod is being recoupled, provided the one-rod-out interlock is OPERABLE. In addition, the "†" footnote to Table 1.2 allows for a single control rod drive to be removed while in Cold Shutdown in accordance with the provisions of Specification 3.9.10.1. These provisions allow a control rod to be uncoupled from its drive for drive replacement or maintenance without the reactor head being removed. However, the provisions do not permit venting of or scram time testing of control rods in Operational Condition 3 or 4.

Discussion

The one-rod-out interlock associated with the refuel position of the reactor mode switch provides protection against prompt reactivity excursions. This one-rod-out restriction is enforced by a redundant logic circuit that uses the all-rods-in signal and a rod selection signal to prevent the selection of a second control rod for movement when any other control rod is not fully inserted. Operability of the one-rod-out interlock is required by Specification 3.9.1 for OPERATIONAL CONDITION 5 and for Special Test Exceptions allowed by Specifications 3.10.1 and 3.10.3.

Since the mode switch in the Shutdown position blocks rod movement, the movement of the switch to Refuel (or to Startup or Run) is necessary to move a rod for recoupling (e.g., after repairs on the control rod drive) or other maintenance and testing activities. Rod movement in the Refuel position is limited to one rod by the redundant logic of the one-rod-out interlock.

Technical Specification 3.1.1 requires SHUTDOWN MARGIN to be maintained in OPERATIONAL CONDITIONS 1, 2, 3, 4, and 5. SHUTDOWN MARGIN is the amount of reactivity by which the reactor would be subcritical assuming all control rods are fully inserted except for the single control rod having the highest reactivity worth which is assumed fully withdrawn. The one-rod-out interlock, together with the requirements for adequate SHUTDOWN MARGIN during refueling, provides protection against prompt reactivity excursions by preventing withdrawal of more than one control rod and by ensuring the core remains subcritical with any one control rod withdrawn.

Technical Specification Table 1.2 currently allows very limited conditions under which a control rod may be withdrawn in OPERATIONAL CONDITIONS 3 and 4. Consequently, post-maintenance and surveillance testing on control rod drives is a critical path activity during plant startup after a refueling outage. This change would permit the performance of control rod drive testing during cold shutdown, thereby shortening the critical path schedule. While the proposed change will increase the

frequency of single control rod withdrawals in OPERATIONAL CONDITIONS 3 and 4 by expanding the allowance contained in the "**" footnote to include the performance of testing and maintenance activities (e.g., rod exercises), it will not increase the probability of withdrawal events since the withdrawals would have been performed under existing Technical Specifications in OPERATIONAL CONDITIONS 1, 2, or 5. Testing and maintenance are currently allowed (in all BWRs) in OPERATIONAL CONDITIONS 1 and 2 where they are not under the control of the one-rod-out interlock.

To ensure that the one-rod-out interlock is operable when required, the APPLICABILITY for Specification 3/4.9.1 is also revised to include OPERATIONAL CONDITIONS 3 or 4 with the reactor mode switch in the Refuel position. This revision expands the applicability of the appropriate testing requirements for the one-rod-out interlock to Operational Conditions 3 and 4.

The proposed change to Technical Specification Table 1.2 is similar to existing approved Technical Specification Table 1.2 specifications in other BWRs (La Salle, Clinton, Perry, and River Bend). Grand Gulf received a similar amendment to their Technical Specifications on September 15, 1989. Based on the above analysis, there is reasonable assurance that operation of Nine Mile Point Unit 2, in the proposed manner, will not endanger the public health and safety and that issuance of the proposed amendment will not be inimical to the common defense and security.

Conclusion

The SHUTDOWN MARGIN required by Specification 3/4.1.1 ensures the reactor will be maintained subcritical even with the highest worth rod fully withdrawn. The one-rod-out interlock is automatically imposed whenever the reactor mode switch is placed in the refuel position. By expanding the applicability of Specification 3/4.9.1, the revision will impose surveillance requirements to ensure the one-rod-out interlock is OPERABLE prior to allowing withdrawal of a control rod in OPERATIONAL CONDITIONS 3 and 4. The provisions assure that the reactor will remain subcritical during single rod movement with the mode switch in the refuel position. These revisions are in accordance with previous staff approvals and existing Technical Specifications in other BWR reactors, provide needed flexibility for maintenance and testing of rods, are not significantly different from the current permitted operations of rod withdrawal and do not increase the probability of a rod withdrawal event.

10CFR50.91 requires that at the time a licensee requests an amendment, it must provide to the commission its analysis, using the standards in 10CFR50.92, concerning the issue of no significant hazards consideration. Therefore, in accordance with 10CFR50.91, the following analysis has been performed:

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not involve a significant increase in the probability or consequences of an accident previously evaluated.

This revision would allow a single control rod to be withdrawn under control of the reactor mode switch refuel position one-rod-out interlock in OPERATIONAL CONDITIONS 3 and 4. This interlock is explicitly assumed in the safety analysis for control rod removal error during refueling. A prompt reactivity excursion could potentially result in fuel failure. The one-rod-out interlock, together with the requirements for adequate SHUTDOWN MARGIN during refueling, provides protection against prompt reactivity excursions by preventing withdrawal of more than one control rod and ensuring the core remains subcritical with any one control rod withdrawn. The addition of

surveillance requirements for the one-rod-out interlock will assure the interlock is operable prior to withdrawal of a control rod in OPERATIONAL CONDITIONS 3 and 4. Although this change would allow an increase in the frequency of single control rod withdrawals in OPERATIONAL CONDITIONS 3 and 4, the probability of previously analyzed accidents, including control rod withdrawal error, is not affected.

The consequences of previously analyzed accidents in OPERATIONAL CONDITIONS 3 and 4 are not affected by this proposed change. The SHUTDOWN MARGIN requirements of Specification 3.1.1 require the reactor to be subcritical when all control rods are fully inserted except for the single control rod having the highest reactivity worth being fully withdrawn. The one-rod-out interlock of the reactor mode switch refuel position permits only a single control rod to be withdrawn. The proposed change will not result in the reactor having the potential for attaining criticality in OPERATIONAL CONDITIONS 3 and 4 or affect the initial conditions assumed in any design basis accident analysis.

Based on the above, the probability and consequences of previously analyzed accidents are not increased.

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not create the possibility of a new or different kind of accident from any accident previously evaluated.

Single control rods can be withdrawn in OPERATIONAL CONDITIONS 3 and 4 under the existing Technical Specifications to permit control rod recoupling. The proposed change would merely expand this provision to other control rod maintenance and testing activities performed in OPERATIONAL CONDITIONS 3 and 4. The withdrawal of individual control rods in OPERATIONAL CONDITIONS 3 and 4 is a mode of operation permitted under limited circumstances by the existing Technical Specifications. The revision to Specification 3/4.9.1 provides additional assurance that the one-rod-out interlock is OPERABLE in OPERATIONAL CONDITIONS 3 and 4.

The additional control rod maintenance and testing activities which could be performed in OPERATIONAL CONDITIONS 3 and 4 are permitted by the existing Technical Specifications in OPERATIONAL CONDITIONS 1, 2 and 5. Examples of activities which could be performed include venting of control rods following a reactor scram or control rod drive system outage, normal control rod insertion/withdrawal timing and adjustment, control rod scram time testing and control rod friction testing.

Since single control rod withdrawal for the purpose of recoupling is currently allowed in OPERATIONAL CONDITIONS 3 and 4, and Specification 3/4.9.1 is revised to ensure the one-rod-out interlock is OPERABLE, this change does not create the possibility of a new or different kind of accident from any previously evaluated.

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not involve a significant reduction in a margin of safety.

The Technical Specifications currently permit single control rod withdrawal for the purpose of control rod recoupling when in OPERATIONAL CONDITIONS 3 or 4 if the one-rod-out interlock is OPERABLE. This change merely allows additional activities for which a single control rod may be

withdrawn when in OPERATIONAL CONDITION 3 or 4, with the same restriction that the one-rod-out interlock be OPERABLE.

While the Technical Specifications currently allow limited control rod withdrawal in OPERATIONAL CONDITIONS 3 and 4 provided the one-rod-out interlock is OPERABLE, they have no surveillance requirements for the one-rod-out interlock while in OPERATIONAL CONDITION 3 or 4. The revision to the APPLICABILITY statement in Specification 3/4.9.1 invokes the Surveillance Requirements for the one-rod-out interlock whenever control rod withdrawal is performed in OPERATIONAL CONDITIONS 3 and 4. Together, the operability requirements for the one-rod-out interlock and the SHUTDOWN MARGIN requirements of Specification 3.1.1 ensure the reactor will be maintained subcritical during single control rod withdrawals. Therefore, this change will not involve a significant reduction in the margin of safety.